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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,667	02/04/2005	Zhenhua Wang	CH 020025	8409

24737 7590 08/11/2006

PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
P.O. BOX 3001  
BRIARCLIFF MANOR, NY 10510

EXAMINER

MOE, AUNG SOE

ART UNIT	PAPER NUMBER
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2618

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/523,667

**Applicant(s)**

WANG, ZHENHUA

**Examiner**

Aung S. Moe

**Art Unit**

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date see attached.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. **The abstract of the disclosure is objected to because the abstract should be in narrative form and limited to a single paragraph on a separate sheet within the range of 50 to 150 words (i.e., the current abstract is more than 300 words). Correction is required. See MPEP § 608.01(b).**

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.

(b) CROSS-REFERENCE TO RELATED APPLICATIONS.

Art Unit: 2618

- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or  
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

**3. The disclosure is objected to because of the following informalities: as required by 37 CFR 1.77(b), please provide the section headings as listed in "(f) through (j)" as indicated above.**

**Appropriate correction is required.**

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 4-11 and 15-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for being in improper form of multiple dependent claims because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n).

Accordingly, the claims 4-11 and 15-24 have not been further treated on the merits..

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3 and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Dadds (EP 0,322,024).

Regarding claim 1, Dadds '024 discloses apparatus (Fig. 1) for processing an input signal (i.e., the input signal from the terminal 10 as shown in Fig.1) having a carrier frequency (i.e., IF band of the RF signals) that defines a desired band and at least a side band having a side band frequency that is higher than the carrier frequency (i.e., see Figs. 2-3; and col. 1, lines 5+), the apparatus (i.e., Fig. 1) comprising a main input (10) for receiving said input signal, a first mixer

Art Unit: 2618

(40) having a first mixer input, a first local oscillator input (42), and a first mixer output (i.e., noted the output from the mixer 40), the first mixer input (noted the first input to the mixer 40) being connectable to the main input (10) and the first local oscillator input (i.e., input of the element 42) being connectable to a source (i.e., noted that the use of a source is considered an inherent feature of the receiver/converter as shown in Fig. 1) providing a first local oscillator signal having a frequency close to or equal to the carrier frequency (i.e., see Figs. 2 and 3; col. 4, lines 1-45), the first mixer (40) performing a multiplication of said input signal and said first local oscillator signal (i.e., noted the mixer 40 as shown in Fig. 1) to provide a first output signal (i.e. noted the output of the mixer 40) at the, first mixer output, the apparatus (i.e., Fig. 1) being characterized in that it further comprises at least a second mixer (i.e., noted the second mixer located in one of the converters 20-34 as shown in Fig. 1) having a second mixer input (i.e., mixer of converter 20), a second local oscillator input (i.e., noted the input "Fo+mfo" of the second LO), and a second mixer output the second mixer input (i.e., output/input of the second mixer of converter 20), being connectable to the main input (10/12) and the second local oscillator input being connectable to a source (i.e., i.e., noted that the use of a source is considered an inherent feature of the receiver/converter as shown in Fig. 1) providing a second local oscillator signal (i.e., the signals from the second local oscillator located at the converter 20) having the sideband frequency (i.e., noted the sideband frequency as shown in Figs. 2 and 3), the second mixer performing a multiplication of said input signal (i.e., noted the multiplication of the second mixer as shown in Fig. 1) and said second local oscillator signal (i.e., noted the second LO signals used in converter 20) to provide a second output signal (i.e., noted the output signal of the converter 20) at the second mixer output, means for performing a super-positioning

Art Unit: 2618

of the first output signal and the second output signal (i.e., noted the adder 44/46 as shown in Fig. 1), the first local oscillator signal (LO1) and the second local oscillator signal (LO2) being square wave signals (i.e., see Figs. 1-3; col. 3, lines 50-col. 4, lines 55).

Regarding claim 2, Dadds '024 discloses wherein the second mixer (i.e., noted the second mixer of the converter 20 as shown in Fig. 1) applies a negative or a positive coefficient (i.e., noted the use of positive coefficient "m" and "n"; see col. 4, lines 1-55+ and Figs. 2 and 3) when performing the multiplication of said input signal (i.e., input signals from the BPF) and said second local oscillator signal (i.e., noted the signal provide to the second mixer from the second local oscillator of the converter 20).

Regarding claim 3, Dadds '024 discloses wherein the means for performing a super-positioning of the first output signal and the second output signal are realized as an adder (i.e., noted the use of adder 44 and 46 as shown in Fig. 1; see col. 4, lines 6-10).

Regarding claims 12-14, it is noted that method claims 12-14 are corresponding to the claims 1-3 as discussed above, thus, claims 12-14 are rejected for the same reasons as discussed above for claims 1-3.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Following references are related to the present claimed invention:

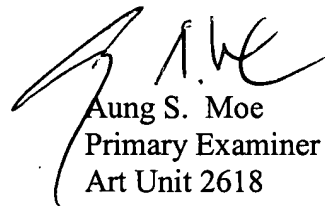
US006993295B2	US006960962B2	US006094569A	US006920185B2
US006728528B1	US006397051B1	US005220683A	US006728525B1

Art Unit: 2618

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aung S. Moe whose telephone number is 571-272-7314. The examiner can normally be reached on Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Aung S. Moe  
Primary Examiner  
Art Unit 2618

A. Moe  
August 6, 2006